Chapter 4 Cumulative Impacts

4.1 Introduction

Cumulative impacts are defined as the effects on the environment resulting from the incremental contribution of the project when added to the environmental effects of the past, present, and reasonably foreseeable future actions regardless of who proposes those actions. The purpose of the cumulative impacts section is to document that the consequences of the proposed project have been considered in combination with those consequences of other projects.

Both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require a discussion of cumulative impacts. The discussion considers whether a proposed project's incremental effects have the potential to be cumulatively considerable when taken together with those of closely related past, present, and reasonably foreseeable future actions. Cumulative impacts can be difficult to thoroughly assess due to a lack of definitive information on future development projects. This analysis uses the best information available to assess the potential cumulative impacts related to the proposed project.

A significant cumulative impact on the environment means a substantial, or potentially substantial, adverse or beneficial change in any of the physical conditions within the area affected by the project that results from the compounded or incremental individual environmental impacts of a collection of projects when considered together.

4.2 Cumulative Impacts Area

For the proposed project, the area for evaluation of cumulative impacts is the Route 101 corridor between SR 116 in Cotati and River Road in Fulton. This area was selected because it would be most influenced by projects on Route 101.

4.3 Projects Considered in the Cumulative Impacts Evaluation

In order to conduct a review of projects to be considered for a cumulative impact analysis, various sources were consulted.

1. A search of the Governor's Office of Planning and Research Office database of environmental documents was performed to obtain a list of projects within specific geographic areas. A search was completed for Sonoma County, Santa Rosa, Windsor and Rohnert Park (Database can be accessed on the world wide web at www.ceqanet.ca.gov).
2. Projects routed to Caltrans District 04's IGR/CEQA unit were reviewed.
3. Caltrans staff visited the planning department at the city of Santa Rosa.
4. Caltrans staff visited the Sonoma County permit and Resources Management Department.

The following criteria were used to determine which projects should be considered for further analysis:

- Project needed complete, draft environmental document.
- Document received between January 2000 and June 2003 (two projects that directly intersected with the current project area were considered back to 1996).
- Project located within a reasonable distance of SON-101 corridor, between Cotati and Windsor.

Projects that provided no actual development plans were screened out. The geographic boundaries were determined by a combination of the extent of the current document's traffic analysis projections and similar environmental resources that could be affected. Therefore, Cotati is used as the southern boundary because the Cotati grade provides a natural divide between the Santa Rosa Plain and the Petaluma River Basin. Resources that the current project has the potential to affect were used as additional identifiers for projects for inclusion. Thus, projects with impacts to similar resources were chosen to include in the analysis.

The following projects have been included in the cumulative impacts evaluation, as they are located along either Route 101 or SR-12 in the general vicinity of the proposed project:

- HOV Widening Route 101 from SR-12 north to Steele Lane (proposed project)
- HOV Widening Route 101 from Wilfred Avenue north to SR-12 (open to traffic November 2002)
- Wilfred Avenue Interchange Improvements on Route 101
- HOV Widening Route 101 from north of Steele Lane to Windsor River Road
- HOV Widening Route 101 from Old Redwood Highway to Rohnert Park Expressway
- SR-12/Farmer's Lane Interchange Improvements.

- Bellvue Avenue Widening
- Prince Memorial Greenway
- Paulin Creek Estates
- Railroad Square Drainage Improvements
- South Sonoma Business Park
- 3rd and Davis Mixed Use Project
- Santa Rosa Avenue Underground Storm Water Drainage
- Grace Brothers Redevelopment Project

Other projects that would most likely occur in the proposed project area include primarily residential and commercial development. These actions are largely based on build-out and growth patterns outlined in the local General Plans for the region. Land use information used in this analysis includes data from Sonoma County (March 1989, Amended December 1998), City of Santa Rosa (November 2001), and the City of Rohnert Park (July 2000).

4.4 Potential Cumulative Impacts

There is no universally accepted approach to preparing a cumulative impact analysis. Determining the threshold beyond which cumulative impacts significantly degrade the environment is difficult. While cumulative impacts as a result of humankind's actions have compounded in the project area since the time of initial human contact, it is not possible for this document to analyze the cumulative impacts of the proposed project over too great a time period. For a cumulative impacts analysis to be effective, it must be limited through scoping to the effects that can be evaluated meaningfully. Based on historical development patterns in Sonoma County, development projects of any type within the cumulative impacts area are expected to be concentrated around the existing developed communities. Generally, urban uses dominate adjacent to the freeway and agricultural land use exists farther from the freeway. It appears for the foreseeable future, agricultural uses will continue as the primary land use outside the areas identified for planned growth.

4.4.1 Cumulative Effects of the Evaluated Projects

To study the role of the proposed project on cumulative effects in the project area, first the topics of potential concern were identified: environmental factors for which the proposed project might reasonably have the potential to contribute to a cumulative impact. For instance, because noise impacts are very localized, they tend not to accumulate over an area. The proposed project's only potential natural environment

impacts are to oak trees and to salmonid fish, so only those were the only cumulative biological impacts analyzed. Also, environmental factors where the proposed project would have no effect were eliminated from the study. The discussion which follows is summarized in Tables 4-1a and 4-1b.

Hydrology/Water Quality. The proposed project is expected to have a beneficial impact to stormwater quality because of the water treatment features described in Section 3.2. Most of the projects in Tables 4-1a and 4-1b would result in more impervious surface area. Effective measures are available to address many types of impacts to water quality. For instance, design features such as energy dissipater structures can prevent scouring at outlets of drainage features at any site. Furthermore, the projects would also require permits under the National Pollutant Discharge Elimination System. These would require plans and measures to minimize water pollution during construction, and permanent control measures to minimize water pollution afterwards. The Regional Water Quality Control Board could take enforcement action against any project proponent failing to meet the conditions of the NPDES permit. The net effect to water quality of the projects listed in Tables 4-1a and 4-1b would be minor, and in some cases, as with the Prince Memorial Greenway Project, the net effect would be beneficial.

Geology/Soils/Seismicity. Because geologic and soil conditions are highly localized, implementation of any of the projects listed in Tables 4-1a and 4-1b would not result in cumulative geologic or soils impacts. Engineering and design features are available to avoid seismic hazards.

Hazardous Materials. Existing laws for management of hazardous materials are designed to protect human health and the environment. Over the past three decades, these laws have become comprehensive and effective at identifying potential exposures to hazardous materials and regulating them. For instance, demolition activities in general can generate materials contaminated with lead-based paint or asbestos. Regulatory agencies effectively identify and regulate the management and disposal of these materials. No cumulative impacts of concern related to hazardous materials are expected.

Air Quality. Since the federal Clean Air Act was passed in 1970 and amended in 1977 and 1990, air quality in the Bay Area has improved. Emissions levels and ambient concentration for most pollutants are dropping in the San Francisco Bay Area Air Basin despite increases in population and vehicle miles traveled. The one pollutant that has shown an increase in the last 20 years is particulate matter. This increase is due to a growth in area-wide sources, primarily fugitive dust sources.

However, smaller particulate matter (PM_{10}) concentrations, for the most part caused by combustion, are decreasing as a result of emission controls.

Transportation projects such as the proposed HOV widening project are determined to meet transportation air quality conformity requirements if they have been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the Regional Transportation Program (RTP) and Transportation Improvement Plan (TIP) which conforms with the State Implementation Plan. The analysis considers all planned and programmed transportation projects within the San Francisco Bay Area Air Basin, and thus is a cumulative analysis. Transportation projects in Table 4-1a that are included in the RTP have therefore been analyzed and found not to contribute to a cumulatively-considerable impact to air quality.

The non-transportation projects in Table 4-1b are also subject to air quality permitting requirements. Projects that are in conformance with the regional air quality plan and that meet regional air pollutant budgets (based on air quality models and analyses) would not be expected to have a negative cumulative impact.

Natural Resources. Three projects in the cumulative impact study – the proposed project, the Route 101 HOV widening from Wilfred Avenue to SR-12, and the Wilfred Avenue Interchange Improvements on Route 101—would result in the loss of roadside vegetation such as oaks, redwoods, and various shrubs. However, Caltrans habitat replacement policy, as well as requirements of regulatory agencies such as the California Department of Fish and Game, are expected to fully replace the natural resource values of lost vegetation such as oaks.

Similarly, legal requirements as well as state policies to protect wildlife and threatened or endangered species including threatened salmon and trout are expected to prevent those species from suffering any net adverse effect. Projects such as the Prince Memorial Greenway are expected to have net benefit to such species by restoring natural habitat and improving water quality.

Land Use. Although land use changes would result from some of the projects listed in Tables 4-1a and 4-1b, all the changes are consistent with planned growth and development specified in the relevant general plans. No zoning would need to be changed as a result of the projects. The projects that affect land use have mitigation measures that will most likely reduce the impacts to minimal levels. Proportionately, the land use changes are too small to meet the criteria for cumulative importance.

Socioeconomic/Growth Impacts. None of the projects listed in Tables 4-1a and 4-1b would displace a substantial number of people or existing buildings; create a

substantial imbalance between employed residents and jobs; nor create a substantially imbalanced social, economic, or building mix in any area of Sonoma County. No direct increase of population or employment opportunities can be easily determined from implementation of the proposed project or the other projects listed on Tables 4-1a and 4-1b. Any changes in population or employment opportunities as a result of any of the projects would be minimal at most. All of the projects listed in Tables 4.1a and 4-1b are consistent with the respective general plans governing growth and development. No substantial cumulative impacts are expected.

Community Facilities/Services. Construction of any of the projects listed in Tables 4-1a and 4-1b would not cumulatively adversely affect community facilities/services within the Route 101 corridor. In fact, projects that would improve traffic circulation on Route 101 should result in a positive impact to emergency response times. The projects that would entail a noticeable increase in demand for community services also include features to help meet that demand. Additionally, several projects would provide a net benefit to communtiy facilities and services such as parks and sewer improvements. The proposed project would acquire a portion of the Burbank Elementary School playground but this effect is not expected to substantially contribute to a cumulative impact.

Traffic/Transportation. The proposed project would have a positive effect on transportation in the project area. The descriptions of future year traffic consider tranportation projects expected to be in place in the years 2010 and 2030. These analyses are cumulative and show a cumulative improvement in traffic operations in the future, compared to the no project condition.

Visual Resources. Construction of the Route 101 projects listed on Table 4-1a would change the visual character of the Route 101 corridor from the feeling of an open freeway with visible vegetation along a majority of the freeway to that of a closed-in freeway due to the necessary removal of vegetation, additional pavement in the median areas, and the likely construction of soundwalls at various locations. Addition of aesthetic features such as those outlined in the proposed project (revegetation, bridge and soundwall aesthetics) would minimize any cumulative impact. Projects outside of the Route 101 corridor are in a different viewshed.

Cultural Resources. All the projects in Tables 4-1a and 4-1b went through mandatory reviews for cultural resources. No notable resources were identified. Effective mitigation measures are available if cultural resources are discovered later on any of the projects. No cumulative impact is expected.

Table 4-1a. Cumulative Impacts Project List: Transportation Projects

Resources	HOV Widening Route 101 from SR-12 to Steele Lane (Proposed Project)	HOV Widening Route 101 from Wilfred Avenue north to SR-12 (HOV Opened 11/02)	Wilfred Avenue Interchange Improvements on Route 101	HOV Widening Route 101 north of Steele Lane to Windsor River Road	HOV Widening Route 101 from Old Redwood Highway to Rohnert Park Expressway	SR-12/Farmer's Lane Interchange Improvements	Widening of Bellvue Avenue
Hydrology/ Water Quality	Increase in paved area would result in minimal increase in volume of stormwater runoff. Measures to protect water quality would meet RWQCB requirements. Project is not in the 100-year floodplain.	Increase in paved area increased stormwater runoff minimally. Permit requirements from the RWQCB to protect water quality have been implemented. The project was outside the 100-year flood zone.	Increase in paved area but negligible increase in volume of stormwater runoff. The project is outside the 100-year flood plain.	Increase in paved area means that increase in volume of stormwater runoff must be assessed. Applicable water quality standards and permit requirements will be identified. A flood plain evaluation would be conducted to determine extent of impacted flood plain and recommend mitigation measures, if necessary.	Increase in paved area means that increase in volume of stormwater runoff must be assessed. Applicable water quality standards and permit requirements will be identified. A flood plain evaluation would be conducted to determine extent of impacted flood plain and recommend mitigation measures, if necessary.	Small increase in paved area leading to increased stormwater runoff. Water quality impacts prevented by compliance with permit requirements.	No anticipated impacts to hydrologic or water related resources.
Geology/ Soils/ Seismicity	Engineering and design features are being included to prevent increased risks.	The design incorporates protective features.	Protective engineering and design features are available.	Protective engineering and design features are available.	Protective engineering and design features area available.	The design incorporates protective features.	Project has potential to disturb soils during construction. Best management practices to ensure that sediment does not enter Colgan Creek

Table 4-1a. Cumulative Impacts Project List: Transportation Projects, cont.

Resources	HOV Widening Route 101 from SR-12 north to Steele Lane (Proposed Project)	HOV Widening Route 101 from Wilfred Avenue to SR-12 (HOV Opened 11/02)	Wilfred Avenue Interchange Improvements on Route 101	HOV Widening Route 101 north of Steele Lane to Windsor River Road	HOV Widening Route 101 from Old Redwood Highway to Rohnert Park Expressway	SR-12/Farmer's Lane Interchange Improvements	Widening of Bellvue Avenue
Hazardous Materials	Methods to investigate and manage contamination would prevent hazards to human health and the environment.	Encountered contamination was managed according to established procedures and regulatory requirements.	Methods to investigate and manage contamination would protect public health and the environment.	Methods to investigate and manage contamination would protect public health and the environment.	Methods to investigate and manage contamination would protect public health and the environment.	Any contamination encountered would be managed in accordance with local, state, and federal requirements.	Project will not impact hazardous materials.
Air Quality	Project has been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the RTP and TIP, therefore is consistent with air quality planning.	Project has been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the RTP and TIP, therefore is consistent with air quality planning.	Project has been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the RTP and TIP, therefore is consistent with air quality planning.	Project has been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the RTP and TIP, therefore is consistent with air quality planning.	Project has been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the RTP and TIP, therefore is consistent with air quality planning.	Project has been included in the regional air quality analysis conducted by MTC and the Bay Area Air Quality Management District for the RTP and TIP, therefore is consistent with air quality planning.	The project is not capacity increasing. Although the project is not expected to have any impacts to air quality, roadway watering during construction is proposed to control dust, as needed.

Table 4-1a. Cumulative Impacts Project List: Transportation Projects, cont.

Resources	HOV Widening Route 101 from SR-12 north to Steele Lane (Proposed Project)	HOV Widening Route 101 from Wilfred Avenue to SR-12 (HOV Opened 11/02)	Wilfred Avenue Interchange Improvements on Route 101	HOV Widening Route 101 north of Steele Lane to Windsor River Road	HOV Widening Route 101 from Old Redwood Highway to Rohnert Park Expressway	SR-12/Farmer's Lane Interchange Improvements	Widening of Bellvue Avenue
Natural Resources	Widening and sound wall construction would necessitate removal of median landscaping and many roadside trees, which would be replaced in consultation with Department of Fish and Game. Requirements from regulatory agencies would avoid impacts or replace resources. Species of salmon and trout would be protected by project features and construction restrictions.	Loss of some trees, roadside vegetation, and median planting. Roadside habitat was preserved through replacement planting. Construction timing and techniques avoided impacts to wildlife and migratory birds.	Minor removal of roadside vegetation. Opportunities for replacement planting are available.	Minimizing tree removal is a high priority in designing this project. Methods are available to avoid, replace, or compensate for impacts to natural resources likely to be found in the project area. Potential for species of salmon and trout to be found in the project area. Protective measures are available.	Minimizing tree removal is a high priority in designing this project. Methods are available to avoid, replace, or compensate for impacts to natural resources likely to be found in the project area. Potential for species of salmon and trout to be found in the project area. Protective measures are available.	Oversight by regulatory agencies ensured protection of natural resources.	Several species of trees are proposed to be removed by the project. Replanting of trees is expected to mitigate the impact.
Land Use	Changes in use of about 7 parcels.	No impacts on project area land uses.	Project might convert part of an agricultural field to highway uses, depending on alternative chosen.	Project might require acquisition of about eight residences.	Project might require acquisition of more than 20 parcels. The environmental analysis must evaluate this impact and the effectiveness of mitigation measures.	No impacts on project area land uses.	No impacts to project area land uses.
Socio-Economic/ Growth Impacts	Will require purchase of about 7 parcels, that will be acquired at fair market value. Negligible effects on jobs, businesses, and housing.	No impacts were anticipated	No impacts anticipated.	Would require purchase of residences that would be acquired at fair market value. Preliminary assessment identifies no discernable effect on population or employment.	Would require purchase of parcels that would be acquired at fair market value. Preliminary assessment identifies no discernable effect on population or employment.	No socioeconomic or growth inducing impacts.	The project will impact several residential properties front yards. Mitigation in the form of relocation or replacement of fences, mailboxes, and outbuildings

Table 4-1a. Cumulative Impacts Project List: Transportation Projects, cont.

Resources	HOV Widening Route 101 from SR-12 to Steele Lane (Proposed Project)	HOV Widening Route 101 from Wilfred Avenue to SR-12 (HOV Opened 11/02)	Wilfred Avenue Interchange Improvements on Route 101	HOV Widening Route 101 north of Steele Lane to Windsor River Road	HOV Widening Route 101 from Old Redwood Highway to Rohnert Park Expressway	SR-12/Farmer's Lane Interchange Improvements	Widening of Bellvue Avenue
Community Facilities/ Services	Project would require partial acquisition of an elementary school playground.	Project had no permanent impact to community facilities.	No community facilities and/or services would be impacted.	So far, no impacts to community facilities and/or services have been identified.	So far, no impacts to community facilities and/or services have been identified.	No community facilities and/or services will be impacted.	Project proposes to add water mains, fire hydrants, storm water drain improvements and sewer main connections. No mitigation is proposed.
Traffic/ Transport-ation	Implementation of project would improve traffic operation and reduce congestion as well as promote carpooling.	Implementation of project would improve traffic operation and reduce congestion as well as promote carpooling.	Implementation of project would improve traffic operation and reduce congestion as well as promote carpooling.	Implementation of project would improve traffic operation and reduce congestion as well as promote carpooling.	Implementation of project would improve traffic operation and reduce congestion as well as promote carpooling.	Implementation of project would improve traffic operation and reduce congestion.	Project proposes to improve traffic circulation by adding continuous or location specific left turn lanes.
Visual Resources	Removal of existing freeway landscaping and potential construction of sound walls would have an effect on scenic environment. Project features such as aesthetic treatments on structures would minimize impacts.	Construction of sound walls and removal of existing freeway landscaping affected visual resources. Replacement of landscaping minimizes impacts.	Removal of some trees would have a minimal visual effect	Visual impacts will be determined once a project design is proposed.	Visual impacts will be determined once a project design is proposed.	Project includes landscaping replacement and aesthetic treatment of structures.	The project proposes to remove approximately 35 mature trees which will have an impact to the overall character of the roadway. Tree replacement in planting strips along sidewalks is proposed as mitigation.

Table 4-1a. Cumulative Impacts Project List: Transportation Projects, cont.

Resources	HOV Widening Route 101 from SR-12 to Steele Lane (Proposed Project)	HOV Widening Route 101 from Wilfred Avenue to SR-12 (HOV Opened 11/02)	Wilfred Avenue Interchange Improvements on Route 101	HOV Widening Route 101 north of Steele Lane to Windsor River Road	HOV Widening Route 101 from Old Redwood Highway to Rohnert Park Expressway	SR-12/Farmer's Lane Interchange Improvements	Widening of Bellvue Avenue
Cultural Resources	Should archaeological deposits be discovered during construction, data recovery would be undertaken on any deposits determined to be eligible for the National Register of Historic Places.	No known cultural resources will be affected. Studies found no significant cultural resources in the project area.	No known cultural resources will be affected. There are no known cultural resources in the project area.	Project area has not been studied. Potential for impacts must be evaluated later.	Project area has not been studied. Potential for impacts must be evaluated later.	Studies found no significant cultural resources in the project area.	Cultural resources were found adjacent to, but not in project area. .

Table 4-1b. Cumulative Impacts Project List: Non-Transportation Projects

Resources	Prince Memorial Greenway	Paulin Creek Estates	Railroad Square Drainage Improvements	South Sonoma Business Park	3rd and Davis Mixed Use Project	Santa Rosa Ave Underground Storm Water Drainage Project	Grace Brothers Site Redevelopment Project
Hydrology/ Water Quality	The project will have no adverse long-term impacts to hydrology or water quality. Short-term impacts associated with construction of the creek restoration will be mitigated. Project is expected to have a net benefit to hydrology and water quality.	The project is expected to have negligible impacts to water resources. Mitigation measures to ensure this include culvert crossing designed to maintain water flows and minimize creek impacts, revegetation and restoration of all disturbed banks and an erosion control plan to minimize impacts to the creek.	The project is expected to alleviate current flooding in the area by repairing or replacing drainage infrastructure. The project is not expected to have an impact to groundwater, contribute to flooding on or off-site, or contribute additional capacity to existing drainage systems.	Increased runoff caused by the addition of impervious surfaces has the potential to effect water quality. Mitigation measures will be implemented. Project will also impact the existing drainage system. Development and implementation of a drainage master plan is proposed as mitigation.	Project will have no impact to water quality or hydrologic resources.	Water outflow will not exceed the 100 year flood level or the capacity of the existing drainage. A leaking underground storage tank, and nearby septic tanks have the potential to affect the project, but hazardous materials mitigation measures will be implemented.	The project has the potential to affect water quality and hydrology. Project proponent has is accountable for effective mitigation measures.
Geology/ Soils/ Seismicity	A seismic event could impact the creek bank slopes causing debris slides. Mitigation to reinforce the slopes is proposed.	Project is not expected to have risk of fault rupture. The project is expected to have a minimal impact on soil erosion.	Project is located near a special seismic study area but is not expected to have risk of fault rupture. The project is expected to have a minimal impact to soil erosion.	Near surface soils found at the site could lead to unacceptable settlement for building foundations. Mitigation measures will be implemented.	Project will not affect earthquake faults, sensitive soils or geologic features..	Project has the possibility to carry storm water runoff with disturbed backfill material offsite into local storm drains. Soil erosion prevention methods will be employed.	Project has the possibility to affect soil stability and erosion. Mitigation measures to minimize erosion are proposed.

Table 4-1b. Cumulative Impacts Project List: Non-Transportation Projects, cont.

Resources	Prince Memorial Greenway	Paulin Creek Estates	Railroad Square Drainage Improvements	South Sonoma Business Park	3rd and Davis Mixed Use Project	Santa Rosa Ave Underground Storm Water Drainage Project	Grace Brothers Site Redevelopment Project
Hazardous Materials	Project has potential to impact hazardous materials. Mitigation measures to clean up contaminated soils will be implemented.	Project will not impact hazardous materials	Although motor oil contaminated soils were identified in the project area, a disposal plan was developed. The net effect will be minimal.	Project will not impact hazardous materials.	Project will not impact hazardous materials.	A leaking underground storage tank was identified and corrected. The project also identified the potential for hazardous material spills. Mitigation in the form of established emergency reporting procedures is proposed.	A remediation plan was developed by the city of Santa Rosa and Redevelopment Agency for the clean up of hazardous materials on the project site. The site plan was approved by the California Regional Water Quality Board in May 1996.
Air Quality	No impacts to air quality are expected.	Construction of 5 new homes is not expected to impact air quality.	Project identified the potential for dust and emissions impacts during construction. Mitigation in the form of dust control measures will be implemented by the building contractor.	Project is expected to generate new air pollutant emissions that would affect long-term air quality. Mitigation measures are proposed.	Project is not expected to impact air quality.	Project identified the potential for PM10 emissions during construction. Dust reducing measures are proposed.	Project will impact air quality by adding PM10 emissions during construction. Dust reducing mitigation is proposed. The project will also impact air quality with increased vehicle trips generated. No mitigation is proposed.

Table 4-1b. Cumulative Impacts Project List: Non-Transportation Projects, cont.

Resources	Prince Memorial Greenway	Paulin Creek Estates	Railroad Square Drainage Improvements	South Sonoma Business Park	3rd and Davis Mixed Use Project	Santa Rosa Ave Underground Storm Water Drainage Project October 2000	Grace Brothers Site Redevelopment Project
Natural Resources	Project is expected to have a beneficial impact to biologic resources.	The urban nature of the area and the existence of informal public access along the creek limit the project's potential to affect wildlife. Revegetating all disturbed areas with native plants and prohibiting fencing in creek setback will allow for the movement of wildlife.	The project design avoids effects on natural resources. Alignment of the outfall structure to the creek was modified to preserve two large redwood trees.	Project expects impacts to wetlands, vegetation, including endangered species Sebastopol meadowfoam, and wildlife nesting grounds. Impacts will be mitigated by revegetating trees, replacing Sebastopol meadowfoam offsite, and limiting construction to non-nesting periods.	Project will not affect natural resources.	Potential to impact surface waters was proposed to be mitigated by cordoning off the area below ordinary high water to construction equipment and materials until construction is complete.	No impacts on natural resources.
Land Use	The project could cause the lack of privacy or unauthorized access to private property. Mitigation measures will be implemented.	No impacts to project area land uses that are inconsistent with general plan.	No impacts to project area land uses.	No impacts to proposed land uses of project area that are inconsistent with general plan.	No impacts on project area land uses.	No impacts on project area land uses.	No impacts on project area land uses.
Socio-Economic/ Growth Impacts	No socio-economic or growth inducing impacts.	No socio-economic or growth inducing impacts. The project area is zoned for low-density residential.	No socio-economic or growth inducing impacts.	The project would create up to 2,510 new jobs and could generate need for additional housing. The project will provide on- or off-site housing as mitigation as mitigation.	No socio-economic or growth inducing impacts.	No socio-economic or growth inducing impacts.	No socio-economic or growth inducing impacts

Table 4-1b. Cumulative Impacts Project List: Non-Transportation Projects, cont.

Resources	Prince Memorial Greenway	Paulin Creek Estates	Railroad Square Drainage Improvements	South Sonoma Business Park	3rd and Davis Mixed Use Project	Santa Rosa Ave Underground Storm Water Drainage	Grace Brothers Site Redevelopment Project
Community Facilities/ Services	The project will have beneficial impacts to community facilities by creating a linear park/bicycle/pedestrian path. PMG will not affect	The project will have no impacts to community facilities or services.	The project will have no impacts to community facilities or services.	The project will increase demand for public services such as police and fire protection. The project proposes a fire management plan and private security patrol.	The project will have no impacts to community facilities or services.	The project will have no impacts to community facilities or services	The project will have no impacts to community facilities or services.
Traffic/ Transport-ation	The project is expected to have beneficial impacts to traffic and transportation facilities.	Traffic impacts are expected to be negligible due to the small size of the project.	Although the project could affect parking capacity in the immediate vicinity of construction, the effects are temporary and negligible.	The proposed project would contribute to increased traffic volumes along Route 101.	Traffic impacts are expected to be negligible.	Short term impacts in the form of lane closures and incompatible uses are expected during construction.	The project is expected to add traffic to freeway, exacerbating already unacceptable peak periods. Widening Route 101 is identified as a mitigation measure to alleviate the problem.
Visual Resources	The project has the potential to conflict with existing design standards. Net visual impacts from the project are expected to be beneficial.	The project will have no impacts to visual or aesthetic resources.	The project will have no impacts to visual or aesthetic resources.	The project is expected to impact visual resources by irreversibly altering the character of the project area. Landscape screening will be installed as mitigation.	The project will be reviewed by the Cultural Heritage Board and the Design Review Board to ensure compatibility with the adjacent Railroad Square Historic District and surrounding buildings.	The project will have no impacts to aesthetic or visual resources.	The project's architectural design has the potential to conflict with the Santa Rosa Creek Master Plan. Lighting of the parking area at night also has the potential to impact views of the surrounding area, and vision of motorists on Route 101. However, these effects can be minimized with planning and integration of the design with the Santa Rosa Waterways Plan policies..

Table 4-1b. Cumulative Impacts Project List: Non-Transportation Projects, cont.

Resources	Prince Memorial Greenway	Paulin Creek Estates	Railroad Square Drainage Improvements	South Sonoma Business Park	3rd and Davis Mixed Use Project	Santa Rosa Ave Underground Storm Water Drainage Project	Grace Brothers Site Redevelopment Project
Cultural Resources	Project has the potential to impact several cultural resources along the reaches of Santa Rosa Creek, but effective mitigation measures will be implemented.	No impacts are anticipated.	No impacts are anticipated.	Buried cultural resources are present, but proposed mitigation measures will reduce any impact	No impacts are anticipated.	No impacts are anticipated.	Implementation of a small archaeological recovery plan prevented impacts to cultural resources.

Chapter 5 California Environmental Quality Act Evaluation

5.1 The Relationship between NEPA and CEQA

The proposed project could have an adverse impact on the environment, and must satisfy the requirements of both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) because both a federal agency – the Federal Highway Adminstration – and a state agency – Caltrans – must make project decisions. A combined Environmental Assessment (EA)/ Environmental Impact Report (EIR) has been prepared in accordance with NEPA and CEQA.

CEQA requires that specific significant impacts be identified in an EIR. Under Section 15382 of the CEQA *Guidelines*, "significant effect" is defined as "a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change my be considered in determining whether the physical change is significant."

NEPA does not require significant effects to be identified in the environmental document. The decision to prepare an Environmental Impact Statement is an acknowledgement that the project would result in significant environmental effects. In contrast, the NEPA document for this project is an Environmental Assessment because the environmental studies led to the conclusion that the project would not result in significant environmental effects. Still, other federal laws use the term "significant," including the Department of Transportation Act to describe Section 4(f) resources, the National Historic Preservation Act to describe Section 106 properties, and Executive Order 11988 to describe floodplain impacts.

5.2 Significance of the Proposed Project's Impacts under CEQA

After an analysis of a proposed project's environmental effects, an EIR might conclude that the project would have significant environmental effects. If the environmental impacts were identified as significant and unavoidable, the project

could still be approved if the lead agency concluded that social, economic, or other public benefits outweigh the unavoidable impacts. The analysis for the draft EIR that you are reading, for the proposed HOV widening project, supports the conclusion that the project would not have unavoidable significant environmental impacts.

5.3 Mitigation Measures for Potentially Significant Impacts Under CEQA

Aesthetics. In order to reduce the visual impacts of the proposed project, the following measures would be implemented. They include measures identified by the City of Santa Rosa and adopted by the City Council by Resolution 24219 in December 1999.

To reduce the impact associated with the visual presence of new soundwalls, the color and texture of materials would be chosen to produce a design that is appropriate to and complements the project setting. The final design would be developed in consultation with the City of Santa Rosa and local residents. Also, where feasible, vines would be planted and allowed to grow on the walls to help visually integrate them with the overall landscape and to reduce the incidence of graffiti. New retaining walls would be given aesthetic treatment consisting of surface texturing and color. Such treatments also reduce glare from reflected natural light and headlights.

To reduce the visual effects of disturbances to freeway landscaping, replacement planting would be provided according to Caltrans standards. Replanting of trees would be maximized along Route 101 where trees can be placed without impairing sight distances or encroaching into clear recovery zones.

To reduce the visual impacts of widening the viaduct and to provide a more attractive and comfortable environment for pedestrians and bicyclists, landscaping along Route 101 and local streets, where they intersect with the State right-of-way, would be maximized. Architectural features would be incorporated into the design of the widened viaduct structure, walls, and abutments. Lighting features would be provided in pedestrian zones along local streets beneath the viaduct. Uses of the area beneath the viaduct that would make it more attractive for pedestrians and bicyclists would be promoted. Pedestrian/bicycle improvements on 3rd Street and 5th Street beneath the viaduct would be developed and constructed to be compatible with the City's Downtown Pedestrian Linkage Project along 4th Street. At the Route

101/College Avenue interchange, a new freeway bridge would be constructed that would provide room for bicycle lanes and sidewalks along College Avenue.

As a replacement for the northern pedestrian over-crossing that would be removed, a pedestrian/bicycle path would be constructed along the south side of Santa Rosa Creek and beneath the freeway bridge in conjunction with the City's Prince Memorial Greenway Project. Also, a new bridge over Santa Rosa Creek would be constructed that would provide pedestrians and bicyclists with more visibility and a safer, more comfortable linkage beneath Route 101. The new bridge would incorporate architectural features approved by the City.

While some residual impacts would remain, incorporation of the measures described above would reduce visual impacts of the proposed project toa level that is less than significant.

Biological Resources. The loss of mature oak trees would be compensated through replacement planting. The project proposal includes the removal of about 80 mature roadside oak trees. The location and methods of replanting, as well as the ratio of replacement trees to removed trees, would be developed in consultation with the California Department of Fish and Game.

Cultural Resources – As a state agency, Caltrans considers the project's impact on resources in accordance with CEQA. Caltrans has determined that the project will result in no substantial adverse change to archaeological resources. Further, Caltrans has determined that the historic architectural resources identified in Section 3.13 which are eligible for the National Register of Historic Places are likewise historic resources for the purposes of CEQA. Finally, although not eligble for the National Register, thirteen buildings in the St. Rose Preservation District have been identified as historical resources under CEQA as contributors to the district. These Are 512, 516, 520, 600, 612, 924 and 940 Morgan Street; 823, 831, and 837 Washington Street; 231 Tenth Street; and 308 Lincoln Street. In compliance with CEQA, the project will not result in a substantial adverse change, such as demolition, destruction, relocation, or alteration of the contributing components of the local preservation district, such that significance of these historical properties would be impaired. Therefore, there would be no significant effect to the above-noted historical resources.

Chapter 6 Summary of Public Involvement and Tribal Coordination

6.1 Public Involvement

To inform and involve the public on the proposed project, Caltrans staff have taken the following actions:

Notice of Intent/Notice of Preparation. The public and interested agencies were asked to comment on the subjects to be discussed in the joint Environmental Impact Statement/ Environmental Impact Report for this proposed project via a joint Notice of Intent/Notice of Preparation that was prepared and released October 30th, 2000.

In early 2003, the project's environmental analysis concluded that the project would not be likely to result in significant environmental impacts. In view of this conclusion, FHWA determined that the appropriate NEPA document for the project would be an Environmental Assessment rather than an Environmental Impact Statement. On Monday, May 5, 2003, the Federal Register published FHWA's Notice of Withdrawal of its earlier intent to prepare an Environmental Impact Statement.

Information/Coordination Meetings. Caltrans held public information meetings on October 27, 1999 and November 29, 2000, where attendees could view project related information on large display boards and receive data sheets. On January 10, 2001, Caltrans held an informational meeting for public agencies at the District 4 offices in Oakland. The Draft EA/EIR was released for public review on July 21, 2003 and was available for comment until September 3, 2003. A public meeting to review the document and proposed soundwalls was held on August 7, 2003.

Caltrans Mobile Display. A mobile display showing general information about the project, including a description of the proposed project, an overview map showing the limits of the project, photographs of typical soundwalls located adjacent to highways, a typical cross-section of the proposed project, and other general information, was at the following locations on the following dates:

Location of Display	Date/Time
Sonoma County Transportation Authority Meeting	May 14, 2001
Burbank Elementary School	May 15, 2001

Prince Memorial Greenway Dedication	May 19, 2001
Santa Rosa City Council Chambers	May 21 to 30, 2001
Santa Rosa Plaza	May 30 to June 11, 2001
Coddingtown Mall	June 11 to 17, 2001
Central Santa Rosa Library	June 20 to July 3, 2001
Santa Rosa Visitors Bureau	July 3 to 17, 2001
Santa Rosa Junior College, Fall Faculty Seminar	August 16 to 17, 2001

Visual simulations to show the appearance of the proposed new features of Route 101 were added to the mobile display in 2002. The mobile display was then recirculated at the following places:

Location of Display	Date/Time
Santa Rosa City Council Chambers	June 24 to 28, 2002
Central Sonoma County Library	July 1 to 12, 2002
Santa Rosa Visitor's Bureau	August 15 to 18, 2002
Santa Rosa Plaza	August 19 to 26, 2002

Caltrans Website. A publically-accessible website was developed to provide a variety of information about the proposed project. The web address is http://www.dot.ca.gov/dist4/route12wpg.htm.

Coordination with Local Governments and Stakeholders. Since 1998, Caltrans staff have met regularly with the City Department of Public Works, the Sonoma County Transportation Authority, and other stakeholders to refine the proposed project. Caltrans continues to meet regularly with a City Council representative, members of the Santa Rosa Design Review Board, Main Street, and Santa Rosa Public Works officials in order to develop aesthetic treatments for the improved freeway.

On November 6, 2001, December 3, 2002, and March 3, 2003, Caltrans staff presented current photos and future visual simulations of the proposed project to the Santa Rosa City Council. Caltrans staff then received input from the City Council on the visual simulations. Also present at these presentations were staff members from the City of Santa Rosa Department of Public Works.

Coordination with Santa Rosa School District. The Santa Rosa School District has been working with Caltrans with respect to changes at Luther Burbank School, where the proposed project would have impacts to part of the playground. Caltrans met with

the Santa Rosa School Board on July 25, 1999 with respect to minimizing impacts to the playground, and with parents and Burbank students on September 9, 1999.

Native American Coordination/Meetings. The Native American Heritage Commission (NAHC) was contacted for a search of their Sacred Lands files and for a list of interested Native American groups and individuals in October 1999 and again in June 2000. Letters were sent to groups and individuals named on the list received (see Table 3.13-1 in Section 3.13.1.1) from the NAHC on November 20, 2000 and to the Dry Creek and Federated Indians of Graton Rancherias again on January 2, 2001. In July 2001 a meeting was held with the Lytton Rancheria of Pomo Indians, later a meeting with the Federated Indians of Graton Rancheria occurred in August 2001. Another meeting with representatives of both the Graton and Lytton rancherias further explored the tribes' interest on February 27, 2002. An address to the Lytton Tribal Council was also arranged on February 27, 2002 to explain the project in detail and to solicit views and information regarding the project impacts. The Lytton Tribal Council expressed concern regarding Caltrans' efforts to contact other tribes and suggested that additional effort should be made. As a result Caltrans sent contact letters to the Cloverdale Rancheria of Pomo Indians and to Stewarts Point Rancheria. Follow-up phone calls to all the groups and individuals originally contacted were placed to give the opportunity for verbal comment and to verify receipt of letters. Because consultation is an ongoing exchange of views and information, those groups who have expressed an interest would be included in future phases of this project. Please see Table 3.13-1 in Section 3.13.1.1 for a summary of Native American Involvement to date.

Historic Properties Coordination. On May 15, 2000, Caltrans initiated public outreach for historical resources of the built environment in the project area. A letter was sent to Ms. Leigh Jordan of the Northwest Information Center describing the proposed project and Caltrans' efforts to identify historic properties. The letter requested Ms. Jordan to distribute project and survey information to a number of local agencies, community organizations, and other interested parties in an effort to inform said parties and to elicit responses.

On February 14, 2001, Cultural Resource specialists from the Office of Environmental Assessment presented an overview of the historic architectural survey at a meeting with the City of Santa Rosa Cultural Heritage Board. At this meeting, board members inquired about potential impacts of the project on historic structures and districts in the vicinity of the proposed project. Caltrans staff provided clarification on these issues and an explanation of the environmental review process for this project.

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75 Hawthorne Street
San Francisco, CA 94105

National Marine Fisheries Service
Bay Area Office
777 Sonoma Avenue, Room 325
Santa Rosa, CA 94502

U.S. Army Corps of Engineers
Regulatory Branch
San Francisco District
Attention: CESPN-CO-R
333 Market Street, 8th Floor
San Francisco, CA 94105

U.S. Department of Agriculture
Natural Resources Conservation Service
430 G Street, #4164
Davis, CA 95616

U.S. Fish and Wildlife Service
U.S. Department of Interior
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

U.S. Department of Interior
Office of Environmental Policy and Compliance
1849 C Street NW, Room 2340
Washington, D.C. 20240

State Agencies

Executive Director
Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

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Calif. Department of Fish and Game
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Calif. Department of General Services
Environmental Services Section
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California Air Resources Board
Transportation Projects
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Integrated Waste Management Board
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Calif. State Water Resources Control Board
Division of Water Quality
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Calif. Department of Toxic Substances Control
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Board of Supervisors
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